

**COMMONWEALTH OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU**

NEPR

Received:

May 1, 2023

4:42 PM

IN RE:
LUMA'S RESPONSE TO HURRICANE
FIONA

CASE NO. NEPR-MI-2022-0003

**SUBJECT: Motion Submitting Twelfth Update on
Stabilization Plan and Request for Confidential
Treatment of Portions Thereof**

**MOTION SUBMITTING TWELFTH UPDATE ON STABILIZATION PLAN FOR
TEMPORARY EMERGENCY GENERATION CAPACITY AND REQUEST FOR
CONFIDENTIAL TREATMENT OF PORTIONS THEREOF**

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC ("ManagementCo"), and **LUMA Energy ServCo, LLC** ("ServCo"), (jointly referred to as "LUMA"), and respectfully state the following:

**I. Submission of Twelfth Update on Stabilization Plan for Temporary
Emergency Generation Capacity**

1. In a Resolution and Order of October 7, 2022 ("October 7th Order") with the subject "Baseload Generation Dispatch Status-Post Hurricane Fiona," this honorable Puerto Rico Energy Bureau ("Energy Bureau") convened a Technical Conference to discuss concerns raised by LUMA in a letter dated October 6, 2022, regarding Resource Adequacy and potential Generation resource deficiencies following Hurricane Fiona. Per the October 7th Order, the topics to be discussed at the Technical Conference were "(i) Dispatch Status of the available Baseload Generation post Hurricane Fiona and (ii) the identified temporary emergency mitigation measures thought to address the generation deficiencies arising from Hurricane Fiona."¹

¹ The Technical Conference was held as scheduled on October 11, 2022. During the Technical Conference, the Energy Bureau and consultants for the Energy Bureau posed questions to LUMA's representatives.

2. On October 12, 2022, the Energy Bureau entered a Resolution and Order whereby it ordered LUMA to develop a stabilization plan as a direct response to Hurricane Fiona, in coordination with the Federal Emergency Management Agency (“FEMA”) and the Puerto Rico Electric Power Authority (“PREPA”) “to address any baseload generation inadequacy or shortfall that affects the dispatch availability and has the potential to cause load shedding or a blackout event of the electric system (“Stabilization Plan”)” (“October 12th Order”).

3. Per the October 12th Order, LUMA was directed to submit the 1st and the 15th day of each month from the notice of the Order, an updated report addressing the efforts conducted by LUMA to assure the completion of the Stabilization Plan.

4. On October 27th, 2022, the Energy Bureau issued a Resolution and Order whereby it set a technical conference for November 1, 2022 (“October 27th Order”) in connection with the first update on the Stabilization Plan. The Energy Bureau stated that it is particularly interested in “learning about the (1) U.S. Army Corps of Engineers (“USACE”) Generation Assessment underway, (2) Emergency Temporary Generation under a potential FEMA Public Assistance Emergency assignment that can expeditiously mitigate the impact of Hurricane Fiona, and (3) Replacement of Emergency Temporary Generation that seeks to phase out the temporary generation with permanent capacity, noting that this permanent capacity is consistent with the approved Integrated Resource Plan (“IRP”).” *See* October 27th Order at page 1.

5. As per the October 27th Order, the Technical Conference was held as scheduled on November 1st. LUMA representatives appeared to discuss the Stabilization Plan and answered questions by this Energy Bureau.

6. On October 31st, 2022, LUMA submitted the First Update on the Stabilization Plan.

7. On November 15, 2022, LUMA submitted a Second Update on the Stabilization Plan (“Second Update”). In addition, LUMA submitted supplemental information to the Second Update arising from a joint press conference of November 15th, 2022, where the Governor of Puerto Rico, the Hon. Pedro Pierluisi and the Federal Coordinator for the Federal Emergency Management Agency (“FEMA”), Nancy Casper, announced that FEMA’s power stabilization initiative aims to install between 600 to 700 MW of temporary emergency generation capacity through the mobilization of power generation maritime barges and temporary land-based generators. *See Supplemental Submission to Second Update on Stabilization Plan to Inform of Announcement by the Puerto Rico Government and FEMA on Temporary Emergency Generation Capacity*, filed on November 15, 2022.

8. On December 1st, 2022, LUMA submitted the Third Update on the Stabilization Plan.

9. The most recent updates to the Stabilization Plan were filed on January 17, 2023 (Fifth Update); January 31, 2023 (Sixth Update); February 14, 2023 (Seventh Update); March 1, 2023 (Eight Update); March 15th (Ninth Update); April 3rd (Tenth Update); and April 17th (Eleventh Update).

10. In compliance with the October 12th Order, LUMA hereby submits as *Exhibit 1*, the Twelfth Update on the Stabilization Plan (“Twelfth Update”). The Twelfth Update includes, among others, a summary of the status of Stabilization Plan with reference to the tasks performed in the past weeks in coordination with USACE, FEMA and PREPA, including an update on the works performed at the Palo Seco and San Juan sites. Finally, the Twelfth Update identifies the current scenario of generation availability and resource adequacy.

11. LUMA redacted portions of *Exhibit 1* and respectfully requests that those portions be kept confidential by this honorable Energy Bureau pursuant to the Energy Bureau's Policy on Management of Confidential Information, CEPR-MI-2016-0009, issued on August 31, 2016, and partially amended on September 16, 2016 and in accordance with the confidential nature of the December 20th closed Technical Conference. In compliance with this policy, LUMA hereby submits its Memorandum of Law in support of its request for confidentiality setting forth the legal basis for which LUMA is entitled to file portions of Twelfth Report under the seal of confidentiality. As explained below, the Energy Bureau should protect several pictures included in *Exhibit 1* from public disclosure as they contain CEII as defined in federal regulations and the Energy Bureau's Policy on Management of Confidential Information. *See* 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674; Energy Bureau's Policy on Management of Confidential Information.

II. Memorandum of Law in Support of request for Confidentiality

A. Applicable Laws and Regulations to Submit Information Confidentially Before the Energy Bureau.

The bedrock provision on the management of confidential information filed before this Energy Bureau is Section 6.15 of Act 57-2014, known as the "Puerto Rico Energy Transformation and Relief Act." It provides, in pertinent part, that: "[i]f any person who is required to submit information to the Energy Commission believes that the information to be submitted has any confidentiality privilege, such person may request the Commission to treat such information as such" 22 LPRA § 1054n. If after appropriate evaluation the Energy Bureau determines that the information should be protected, "it shall grant such protection in a manner that least affects the public interest, transparency, and the rights of the parties involved in the administrative procedure in which the allegedly confidential document is submitted." *Id.* § 1054n(a).

The confidential information shall be provided “only to the lawyers and external consultants involved in the administrative process after the execution of a confidentiality agreement.” *Id.* § 1054n(b). Finally, Act 57-2014 provides that this Energy Bureau “shall keep the documents submitted for its consideration out of public reach only in exceptional cases. In these cases, the information shall be duly safeguarded and delivered exclusively to the personnel of the [Energy Bureau] who needs to know such information under nondisclosure agreements. However, the [Energy Bureau] shall direct that a non-confidential copy be furnished for public review.” *Id.* § 1054n(c).

Relatedly, in connection with the duties of electric power service companies, Section 1.10(i) of Act 17-2019 provides that electric power service companies shall provide the information requested by customers, except for confidential information under the Rules of Evidence of Puerto Rico.

Moreover, the Energy Bureau’s Policy on Confidential Information details the procedures a party should follow to request that a document or portion thereof be afforded confidential treatment. In essence, the referenced Policy requires identifying confidential information and filing a memorandum of law explaining the legal basis and support for a request to file information confidentially. *See* CEPR-MI-2016-0009, Section A, as amended by the Resolution of September 20, 2016, CEPR-MI-2016-0009. The memorandum should also include a table that identifies the confidential information, a summary of the legal basis for the confidential designation, and why each claim or designation conforms to the applicable legal basis of confidentiality. *Id.* at ¶ 3. The party who seeks confidential treatment of information filed with the Energy Bureau must also file both “redacted” or “public version” and an “unredacted” or “confidential” version of the document that contains confidential information. *Id.* at ¶ 6.

The Energy Bureau policy on CEII is regulated by Section D of the Resolution issued on August 31, 2016, in Case No. CEPR-MI-2016-0009. Section D establishes that CEII is Validated Confidential Information and only authorized representatives may review such information:

2. Critical Energy Infrastructure Information (“CEII”)

The information designated by the [Energy Bureau] as Validated Confidential Information on the grounds of being CEII may be accessed by the parties’ authorized representatives only after they have executed and delivered the Nondisclosure Agreement.

Those authorized representatives who have signed the Non-Disclosure Agreement may only review the documents validated as CEII at the [Energy Bureau] or the Producing Party’s offices. During the review, the authorized representatives may not copy or disseminate the reviewed information and may bring no recording device to the viewing room.

Id. at § D (on Access to Validated Confidential Information).

Further on, Energy Bureau Regulation No. 8543, includes a provision for filing confidential information in proceedings before this Energy Bureau. To wit, Section 1.15 provides that:

[A] person has the duty to disclose information to the [Energy Bureau] considered to be privileged pursuant to the Rules of Evidence, said person shall identify the allegedly privileged information, request the [Energy Bureau] the protection of said information, and provide supportive arguments, in writing, for a claim of information of privileged nature. The [Energy Bureau] shall evaluate the petition and, if it understands [that] the material merits protection, proceed accordingly to . . . Article 6.15 of Act No. 57-2015, as amended.

Regulation No. 8543, *Regulation on Adjudicative, Notice of Noncompliance, Rate Review, and Investigation Proceedings* § 1.15; *see also* Energy Bureau Regulation No. 9137 on *Performance Incentive Mechanisms* § 1.13 (addressing disclosure before the Energy Bureau of Confidential Information and directing compliance with Resolution CEPR-MI-2016-0009).

B. Request for Confidentiality of the Pictures included in the Twelfth Update

The Twelfth Update contains pictures that identify or depict CEII that, under relevant federal law and regulations, is protected from public disclosure. LUMA stresses that the pictures which LUMA redacted from the public version of the Twelfth Report warrant confidential treatment to protect the Puerto Rico Energy Transmission and Distribution System (“T&D System”) from threats that could undermine the system and negatively affect electric power services to the detriment of the interests of the public, customers, and citizens of Puerto Rico.

Generally, CEII or critical infrastructure information is exempted from public disclosure because it involves assets and information which pose public security, economic, health, and safety risks. Federal Regulations on CEII, particularly 18 C.F.R. § 388.113, states that:

Critical energy infrastructure information means specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that:

- (i) Relates details about the production, generation, transportation, transmission, or distribution of energy;
- (ii) Could be useful to a person in planning an attack on critical infrastructure;
- (iii) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552; and
- (iv) Does not simply give the general location of the critical infrastructure.

Id. at § 388.113(2).

Additionally, Section 388.113(3) defines critical electric infrastructure as a “system or asset of the bulk-power system, whether physical or virtual, the incapacity or destruction of which would negatively affect national security, economic security, public health or safety, or any combination of such matters.” *Id.* § 388.113(3). Finally, “[c]ritical infrastructure means existing and proposed systems and assets, whether physical or virtual, the incapacity or destruction of

which would negatively affect security, economic security, public health or safety, or any combination of those matters.” *Id.* § 388.113(4).

The Critical Infrastructure Information Act of 2002, 6 U.S.C. §§ 671-674, part of the Homeland Security Act of 2002, protects critical infrastructure information (“CII”).² CII is defined as “information not customarily in the public domain and related to the security of critical infrastructure or protected systems” 6 U.S.C. § 671(3).³

² Regarding the protection of voluntary disclosures of critical infrastructure information, 6 U.S.C. § 673, provides in pertinent part that CII:

- (A) shall be exempt from disclosure under the Freedom of Information Act;
- (B) shall not be subject to any agency rules or judicial doctrine regarding ex parte communications with a decision making official;
- (C) shall not, without the written consent of the person or entity submitting such information, be used directly by such agency, any other Federal, State, or local authority, or any third party, in any civil action arising under Federal or State law if such information is submitted in good faith;
- (D) shall not, without the written consent of the person or entity submitting such information, be used or disclosed by any officer or employee of the United States for purposes other than the purposes of this part, except—
 - (i) in furtherance of an investigation or the prosecution of a criminal act; or
 - (ii) when disclosure of the information would be--
 - (I) to either House of Congress, or to the extent of matter within its jurisdiction, any committee or subcommittee thereof, any joint committee thereof or subcommittee of any such joint committee; or
 - (II) to the Comptroller General, or any authorized representative of the Comptroller General, in the course of the performance of the duties of the Government Accountability Office
- (E) shall not, be provided to a State or local government or government agency; of information or records;
 - (i) be made available pursuant to any State or local law requiring disclosure of information or records;
 - (ii) otherwise be disclosed or distributed to any party by said State or local government or government agency without the written consent of the person or entity submitting such information; or
 - (iii) be used other than for the purpose of protecting critical Infrastructure or protected systems, or in furtherance of an investigation or the prosecution of a criminal act.
- (F) does not constitute a waiver of any applicable privilege or protection provided under law, such as trade secret protection.

³ CII includes the following types of information:

- (A) actual, potential, or threatened interference with, attack on, compromise of, or incapacitation of critical infrastructure or protected systems by either physical or computer-based attack or other similar conduct (including the misuse of or unauthorized access to all types of communications and data transmission systems) that violates Federal, State, or local law, harms interstate commerce of the United States, or threatens public health or safety;
- (B) the ability of any critical infrastructure or protected system to resist such interference, compromise, or incapacitation, including any planned or past assessment, projection, or estimate of

As mentioned above, the Energy Bureau's Policy on Confidential Information provides for the management of CEII. In several proceedings, this Energy Bureau has considered and granted requests to submit CEII under seal of confidentiality.⁴ For example, in at least two proceedings on Data Security,⁵ and Physical Security,⁶ this Energy Bureau, *sua sponte*, conducted proceedings confidentially, recognizing the need to protect CEII from public disclosure.

Additionally, this Energy Bureau has granted requests by LUMA to protect CEII in connection with LUMA's System Operation Principles. *See* Resolution and Order of May 3, 2021, table 2 on page 4, Case No. NEPR-MI-2021-0001 (granting protection to CEII included in LUMA's Responses to Requests for Information). Similarly, this Energy Bureau granted confidential designation to several portions of LUMA's Initial Budgets and Responses to Requests for Information in the proceedings on LUMA's proposed Initial Budgets and System Remediation Plan.⁷

the vulnerability of critical infrastructure or a protected system, including security testing, risk evaluation thereto, risk management planning, or risk audit; or

(C) any planned or past operational problem or solution regarding critical infrastructure or protected systems, including repair, recovery, construction, insurance, or continuity, to the extent it is related to such interference, compromise, or incapacitation.

⁴ *See e.g., In re Review of LUMA's System Operation Principles*, NEPR-MI-2021-0001 (Resolution and Order of May 3, 2021); *In re Review of the Puerto Rico Power Authority's System Remediation Plan*, NEPR-MI-2020-0019 (order of April 23, 2021); *In re Review of LUMA's Initial Budgets*, NEPR-MI-2021-0004 (order of April 21, 2021); *In re Implementation of Puerto Rico Electric Power Authority Integrated Resource Plan and Modified Action Plan*, NEPR MI 2020-0012 (Resolution of January 7, 2021, granting partial confidential designation of information submitted by PREPA as CEII); *In re Optimization Proceeding of Minigrid Transmission and Distribution Investments*, NEPR-MI 2020-0016 (where PREPA filed documents under the seal of confidentiality invoking, among others, that a filing included confidential information and CEII); *In re Review of the Puerto Rico Electric Power Authority Integrated Resource Plan*, CEPR-AP-2018-0001 (Resolution and Order of July 3, 2019, granting confidential designation and PREPA's request that included trade secrets and CEII); *but see* Resolution and Order of February 12, 2021 (reversing in part, grant of confidential designation).

⁵ *In re Review of the Puerto Rico Electric Power Authority Data Security Plan*, NEPR-MI-2020-0017.

⁶ *In re Review of the Puerto Rico Electric Power Authority Physical Security Plan*, NEPR-MI-2020-0018.

⁷ *See* Resolution and Order of April 22, 2021, on Initial Budgets, table 2 on pages 3-4 and Resolution and Order of April 22, 2021, on Responses to Requests for Information, table 2 at pages 8-10, Case No. NEPR-MI-2021-0004; Resolution and Order of April 23, 2021, on Confidential Designation of Portions of LUMA's System Remediation Plan, table 2 on page 5, and Resolution and Order of May 6, 2021, on Confidential Designation of

The Energy Bureau should protect the pictures in the Twelfth Update because they depict the exact location, specifications and characteristics of the gensets and other large capacity equipment assembled and installed at Palo Seco, as well as pictures of the San Juan site. The pictures could be useful to a person planning an attack on the transmission and distribution facilities, as they enable a person to identify their location and provide clear depictions of the equipment which could compromise the electric power services in Puerto Rico.

LUMA respectfully submits that the pictures in the Twelfth Update should be designated CEII. This designation is a reasonable and necessary measure to protect critical infrastructure and enable LUMA to leverage the information and assessment of critical infrastructures without external threats. Given the importance of ensuring the safe and efficient operation of the generation assets and the T&D System, LUMA respectfully submits that the pictures be maintained confidential to safeguard the facility's integrity and protect it from external threats.

C. Identification of Confidential Information.

In compliance with the Energy Bureau's Policy on Management of Confidential Information, CEPR-MI-2016-0009, below is a table summarizing the hallmarks of this request for confidential treatment.

	Document or file	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
1	Generation Stabilization Plan dated May 1, 2023	Pictures on pages 3 through 5 and 7 through 12 of Exhibit 1.	Critical Energy Infrastructure Information 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	May 1, 2023

Portions of LUMA's Responses to Requests for Information on System Remediation Plan, table 2 at pages 7-9, Case No. NEPR-MI-2020-0019.

WHEREFORE, LUMA respectfully requests that this Energy Bureau **take notice** of the aforementioned, **accept** the Twelfth Update submitted as **Exhibit 1** to this Motion, **deem** that LUMA complied with that portion of the October 12th Order that requires submission of bi-monthly updated reports on the Stabilization Plan, and **grant** the request for confidential treatment that is included in this Motion.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 1st day of May, 2023

I hereby certify that this motion was filed using the electronic filing system of this Energy Bureau. I also certify that copy of this motion will be notified to the Puerto Rico Electric Power Authority, through its attorney of record: jmarrero@diazvaz.law.



DLA Piper (Puerto Rico) LLC
500 Calle de la Tanca, Suite 401
San Juan, PR 00901-1969
Tel. 787-945-9107
Fax 939-697-6147

/s/ Margarita Mercado Echegaray
Margarita Mercado Echegaray
RUA NÚM. 16,266
margarita.mercado@us.dlapiper.com

Exhibit 1
Twelfth Update on Stabilization Report



Generation Stabilization Plan Discussion

May 1, 2023

Agenda

- I. Executive Summary - Palo Seco Site
- II. Executive Summary – San Juan Site
- III. Construction Activities & Status
- IV. Current Operations
- V. Resource Adequacy: Loss Of Load Expectation (Risk Forecast)



Executive Summary – Palo Seco Site

- **Construction continues to move forward at the Palo Seco site**
 - Commissioning continues toward in-service operation targeted for 5/16
- **Workaround solutions are being used to avoid a schedule bottleneck**
 - Liquid Natural Gas (LNG) fuel and Demineralization Water (Demin Water) systems are utilizing temporary, mobile equipment to complete the process for the respective systems until permanent equipment arrives
- **Successful transport of large LNG equipment during the night of 4/22-4/23**
 - Moved from the New Fortress Energy (NFE) wharf to the Palo Seco site, which required the close of HWY 26 for ten (10) hours while the load was slowly and safely transported
 - Included extensive coordination among LUMA, Fortaleza, Weston Solutions, NFE and Police
- **“First fire” (full speed, no load generator test) scheduled to begin on 4/27-4/29 was delayed**
 - Delay was due to lack of agreement between PREPA and contractors on diesel fuel supply for commissioning. An agreement has been reached and is pending execution by the parties.
 - “First fire” will be performed as soon as the agreement is signed by all parties

REDACTED

93k gallon LNG tank pulling into Palo Seco site on Sunday morning 4/23 after the 7-mile transport



Executive Summary – San Juan Site

- **Working through a major site issue to begin construction**
 - Delay in completing adequate, formal **general arrangement plan** for equipment, pipe routings and electric cable paths
 - Limited, congested space on the San Juan site
 - Workable layout is a key requirement prior to beginning on-site construction
- **Shipping of equipment is underway**
 - Five (5) of the ten (10) generators (gensets) shipped from Egypt on 4/22 and expected to arrive in Puerto Rico on 5/7

REDACTED

A generator being loaded onto a ship in Alexandria, Egypt on 4/22 and heading to Puerto Rico

REDACTED

Left: Aerial view of the San Juan site shows the limited space and congestion

- **San Juan site does not have an in-service date at this time because of the delay caused by not having a workable general arrangement plan.**
- **An in-service date will be established once the general arrangement plan is accepted**



Worksite Highlights

Palo Seco – “First Fire” delayed, while commissioning of gensets continue

- As many as 200+ workers on site during day shift; 100+ on night shift
- 91% of the concrete has been placed as of 4/26
- 50,000 feet of electric cable pulled and in place
- 1,000 lineal feet of diesel pipe has been installed
- Continued electric cable pulls, termination of cables and installation of switchgear

REDACTED

Refurbishing an existing tank to store demineralized water used for pollution control at the Palo Seco site

REDACTED

Proposed 115 KV connection points at the San Juan site Switchyard

San Juan – Primary effort is on project planning and preparation

- Significant time and effort being spent to search for an adequate location for the PREPA 300 MVA transformer needed for the generation interconnection (the current recommendation is outside of, but adjacent to PREPA property)
- Accident Prevention Plan (APP) and Security Plan : Submitted - 4/10
- Work Plan, Quality Control Plan, Site Preparation: Submitted - 4/11
- Site Layout Plan, Transportation Plan and Fueling Plan: in process
- Construction & Project Control staff mobilizing to Puerto Rico
- Initial geotechnical soil borings conducted - 4/20
- PREPA safety orientation with construction team - 4/20

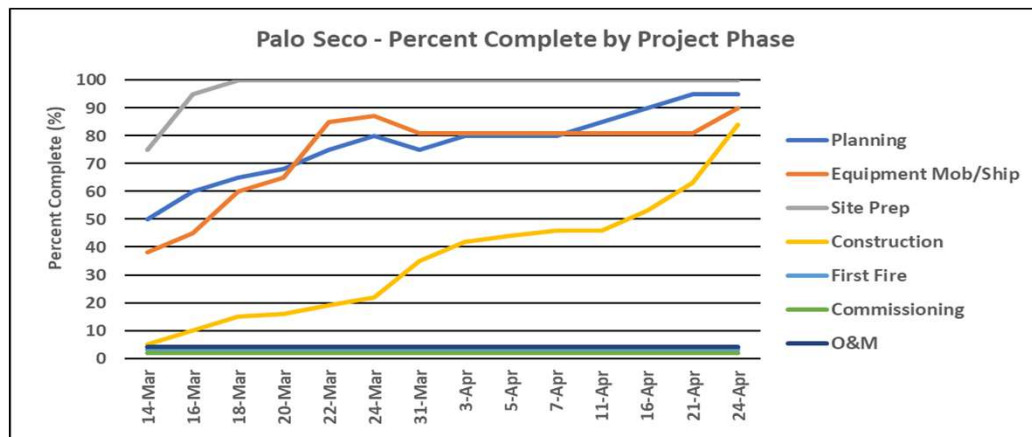


Construction Activities - Progress Tracking by Phase: Palo Seco

24-Apr-23

Phase	Activity	Start	Finish	% Complete	Overall % Complete
Planning	Submittals	1-Mar	22-Apr	95%	95%
	RFIs	1-Mar	22-Apr	95%	
	Incidental Design	1-Mar	22-Apr	95%	
Equipment Mob/Shipping	Power Gen (spare unit)	1-Mar	3-May	90%	90%
	LNG Facility	1-Mar	19-Apr	80%	
	Balance of Plant	1-Mar	21-Apr	99%	
Site Prep	Diesel Fuel Supply	1-Mar	15-Mar	100%	100%
	LNG Facility	1-Mar	23-Mar	100%	
	Power Generators	1-Mar	15-Mar	100%	
Construction	Diesel Fuel Supply (Press Test/Flush)	7-Mar	24-Apr	95%	84%
	LNG Facility	16-Mar	5-May	70%	
	Power Generators (Gen 8s)	7-Mar	24-Apr	95%	
First Fire (Full Speed - No Load)	Diesel Fuel Supply	25-Apr	27-Apr	0%	0%
	LNG Facility (Mobile Re-Gas)	27-Apr	30-Apr	0%	
	Power Generators	25-Apr	30-Apr	0%	
Commissioning	LNG Facility	5-May	15-May	0%	
	Power Generators	3-May	10-May	0%	
O&M (COD)		16-May		0%	0%

- Yellow highlight on table indicates where the construction schedule has been adjusted to reflect current status and projections as of 4/24
- "First Fire" has been added to the tracker as a precedent phase to commissioning. It is a significant milestone to prove operational capability and safety
- Graph trends show progress in Planning, Equipment and Construction.
- Arrival of the LNG equipment on 4/24 seen in Equipment trend line
- Pre-commissioning genset checkout has started and is expected to continue through 5/15



Palo Seco – Emergency Generation Construction Area

REDACTED

Palo Seco Site - LNG Foundation Construction

1
REDACTED

The two pictures above show the before and after of building and removing the concrete forms for the LNG Tank pedestals

REDACTED

*Left: Fresh concrete pour for the
LNG vaporizing skid*

REDACTED

*Right: Placement of
reinforcement steel
(rebar) in the slab below
the pedestals*

Palo Seco Site – LNG Tank Being Set on Site

REDACTED

With the pedestals complete, and after a ten (10) hour, seven (7) mile transport of the tank from the San Juan Port to the Palo Seco site, it was lifted and set on the concrete pedestals



Palo Seco Site – Demineralized Water for Pollution Control

REDACTED

Left: Identified an existing tank to refurbish for demineralized water

REDACTED

Right: Exterior of tank being modified for the new use

REDACTED

Left: The demineralization process equipment layout around the storage tank

Above: Preparing the tank interior for sealant coating



Palo Seco Site – Construction: Pipes and Wires

*Below: Natural gas regulator and
gensets in background - 4/21*

REDACTED

REDACTED

LNG vaporizer and water recirculation skids - 4/23

REDACTED

*Fire protection system being
installed - 4/24*

Gas pipeline being assembled to fuel the gensets - 4/21



Palo Seco Site – Construction: Pipes and Wire

New switchgear and cable

REDACTED



REDACTED



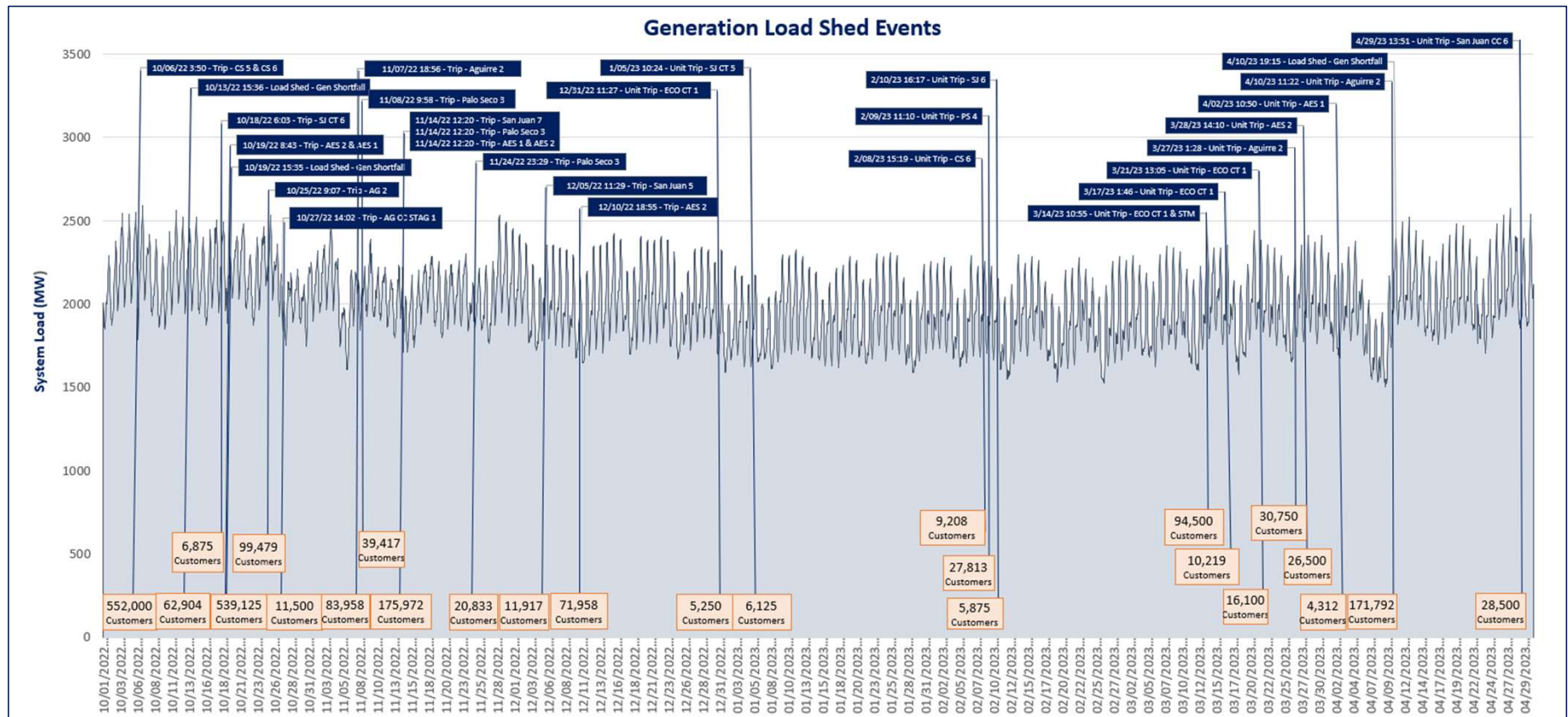
*Multiple genset power cables connected to
the 3-phase busbar - 4/21*



5/1/2023

Current Generation Load Shed Events: 27 load shed events have occurred since October 1, 2022

Updated until 4/30/2023



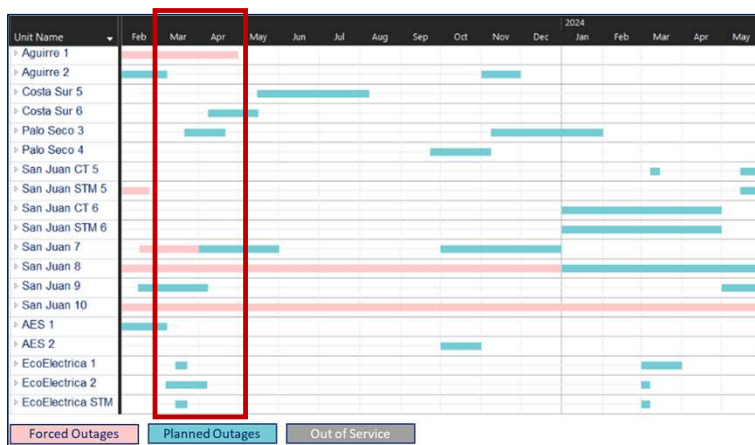
- Since the last report on 4/17, one load shed event occurred on 4/29/2023 caused by the units' trip of San Juan Combined Cycle 6.
- Since October 1, 2022, operating reserves have dipped at some point in the day under the minimum level of 750MW, in 166 days, or 78% of days.



Maintenance Schedule Changes:

- No changes to schedule since the report on 4/3.

Schedule Revisions	Aguirre 1	Aguirre 2	Costa Sur 5	Costa Sur 6	Palo Seco 3	Palo Seco 4	San Juan CT 5	San Juan STM 5	San Juan CT 6	San Juan STM 6	San Juan 7	San Juan 8	San Juan 9	San Juan 10
Baseline Rev. 10-26-22														
Rev. 10-28-22								Extend PO				Add OOS through 2023		Add OOS through 2023
Rev. 12-08-22	Extend FO duration	Move up FO start	Delay PO start	Move up PO start	Delay PO start	Extend PO	Delay PO start	Extend PO duration			Delay PO start			
Rev. 01-05-23		Delay PO start	Move up PO start	Shorten PO duration		Delay PO Start	Add PO in Dec 2023	Extend PO duration						
Rev. 01-17-23		Add PO in Nov 2023									Extend PO duration	Change OOS to FO		Change OOS to FO
Rev. 02-06-23									Add PO in 2024	Add PO in 2024				
Rev. 02-24-23	Extend FO duration to end of Apr 2023.				Move up PO start date from Apr 2023 to Mar 2023 and shorten duration. Add PO in Nov 2023.		Add PO in Mar 2023. Delay PO start from Dec 2023 to May 2024.	Change PO in Feb to FO and extend duration. Delay PO start from Dec 2023 to May 2024.						
Rev. 03-08-23		Extend PO duration												
Rev. 03-20-23			Delay PO of May 2023	Delay PO of Apr 2023	Delay PO of Mar 2023						Add FO in Feb 2023		Extend PO of Feb 2023	

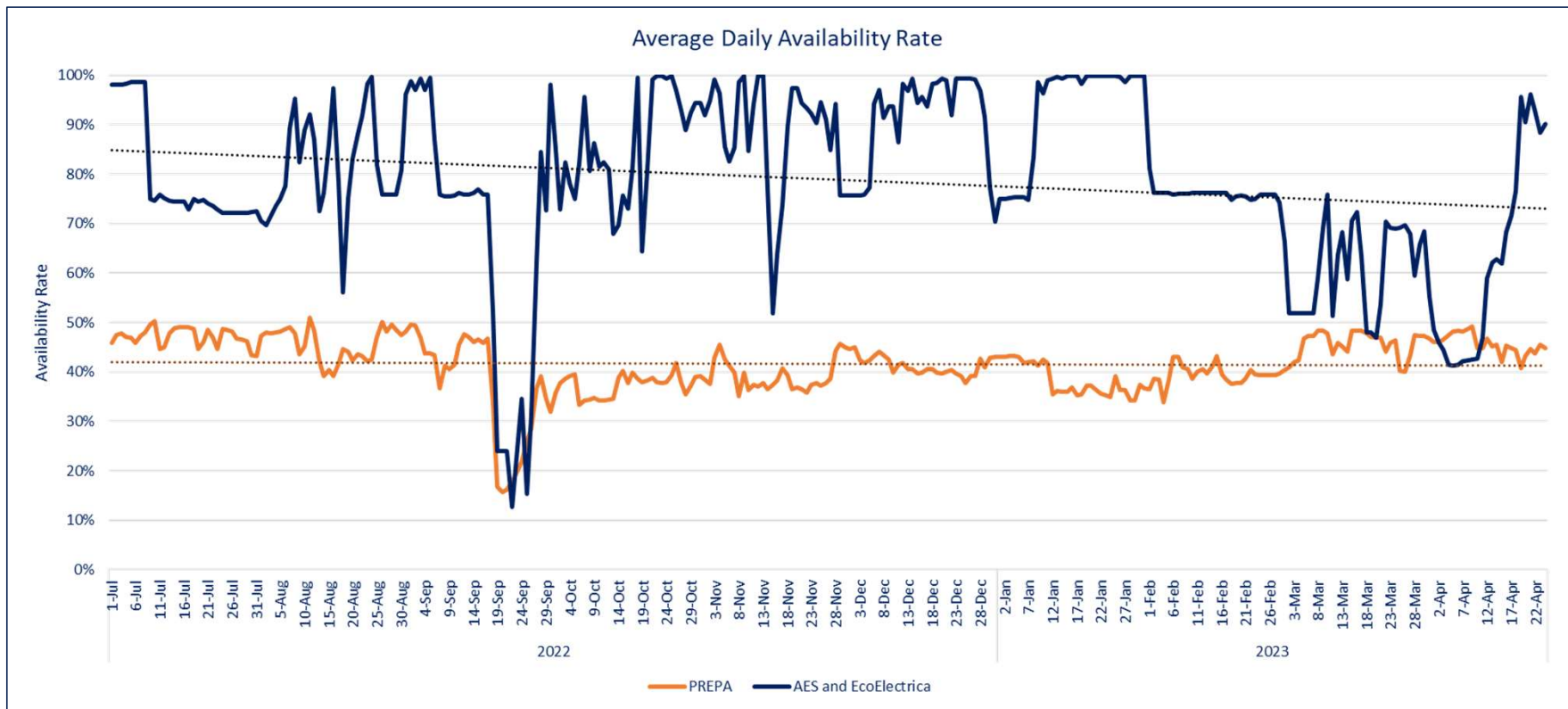


- Stacking of outages in April and May still contributes to a higher risk of load sheds during the period



Overall availability of PREPA units' trend is flat, with small increase in 2023

Updated 4/23/2023

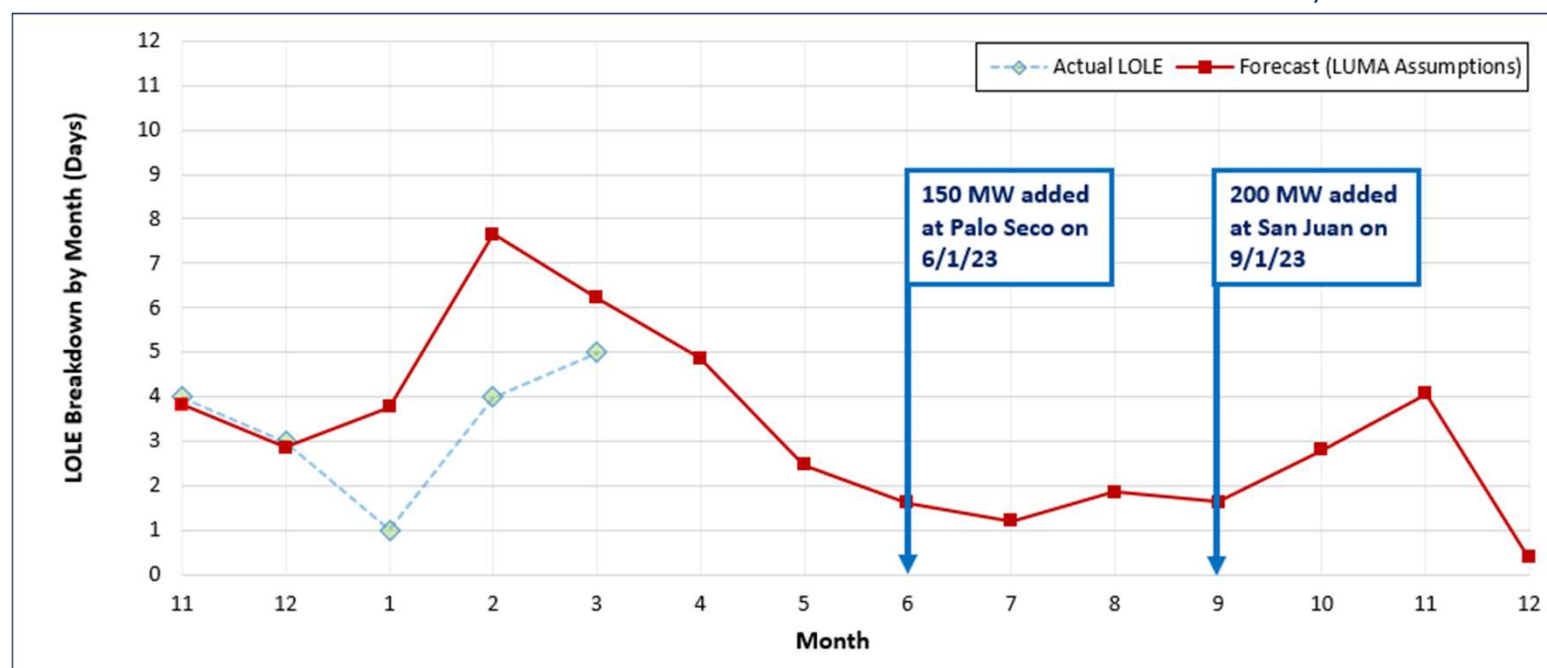


- PREPA average availability approximately 40% with a small improvement in April
- AES and EcoEléctrica average availability has dropped to the near 70% level due to outages in March and April. However, it increased to approximately 90% at end of April



New generators reduce risk of insufficient generation

Analysis Date: 4/25/2023



This graph shows the Loss of Load Expectation (LOLE) per month and the actual Loss of Load experienced in the last 5 months

- The in-service date assumption of the emergency generation was updated since the 4/17 report to conform to current expected dates (June for Palo Seco; September for San Juan)
- Costa Sur #5 and #6 outage assumptions were moved out +1 month based on preliminary schedule discussions

